REKASHEVA, T.N.

Free electron model applied to the thiophene molecule. Opt. i spektr. 11 no.2:284-286 Ag '61. (MIRA 14:8)
(Thiophene)
(Nuclear models)

REKASHEVA, T.N. (Leningrad)

Study of the nitrobenzene molecule based on a free-electron model. Zhur. fiz. khim. 35 no.3:638-642 Mr '61. (MIRA 14:3)
(Benzene)

S/076/61/035/003/017/023
B121/B206

AUTHOR: Rekasheva, T. N.

TITLE: Investigation of the nitrobenzene molecule with the aid of the free electron model

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 3, 1961, 638-642

TEXT: A system of the energy levels of the π-electrons of the nitrobenzene molecule was drawn up. In this study, the model of the free electrons was used for calculating the nitrobenzene molecule. Based on chemical data, the nitrobenzene molecule contains 10 π-electrons, 6 of which belong to the benzene ring, 2 to the nitrogen, and 1 each to the oxygen atoms. Energy levels of the π-electrons in the molecule, expressed in atomic units, were calculated for the symmetric and asymmetric states of the molecule. The results are compiled in Table 1. For the 3 transitions with the lowest frequency, the energy differences and their corresponding frequencies were given:

Card 1/4

$E_6 - E_5 = 0.128$ a. u., $\nu_1 = 27940\ cm^{-1}$;
$E_7 - E_5 = 0.163$ a. u., $\nu_2 = 35860\ cm^{-1}$;
$E_8 - E_5$
$E_9 - E_5 = 0.230$ a. u., $\nu_3 = 50160\ cm^{-1}$.

The oscillatory forces for the 3 transitons were calculated in atomic units, and the results are compiled in Table 2. The distribution curve of the π-electron density along the semiperimeter of the benzene ring was elaborated. It agrees with the experimental chemical data. In the nitrobenzene molecule, the maxima of electron density are in the m-positions. The author thanks M. G. Veselov for valuable advice. There are 2 figures, 2 tables, and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: July 13, 1959

Investigation of ...

① Симметричные состояния	② Антисимметричные состояния	
	ⓐ Разветвление	ⓑ Кольцо
E_1=—0,273; A_1=0,385 E_2=0,004; A_2=0,070 E_3=0,075; A_3=0,052 E_5=0,086; A_5=0,044 E_7=0,249; A_7=0,042 E_8=0,316; A_8=0,128	E_6=0,214; A_6=0,059	E_4=0,079; A_4=0,356 E_9=0,316; A_9=0,356

Legend to Table 1: 1) Symmetric states, 2) antisymmetric states, a) side chain , b) ring.

① Переходы	ν, см⁻¹ ② вычисл.	ν, см⁻¹ ③ опыт. [5] *	f	④ lg ε макс
		⑤		
5→6	27940	*R*-полоса 30300	0,015	2,1
5→7	35860	*B*-полоса 35700	0,193	3,0
5→8			0,324	
5→9	50160	*K*-полоса 39680	0,122	4,0

Card 3/4

Investigation of ...

Legend to Table 2: 1) Transitions, 2) calculated, 3) experimental. Instead of the wavelengths mentioned in Ref. 5 (A. Gillem and Ye. Shtern, elektromnyye spektry pogloshcheniya organicheskikh soyedineniy, IIL, Moskva, 1957), the corresponding frequencies are given here. 4) $\log\varepsilon_{max}$, 5) band.

Card 4/4

B-4

USSR/Physical Chemistry. Molecule. Chemical Bond.

RELASHEVA, T. N.

Abs Jour : Ref Zhur - Khimiya No 7, 1957, 21943

Author : Relasheva, T. N.
Inst : None
Title : Metallic model applied to arcolein molecule.

Orig Pub : Zh. fiz. khimiyi, 1956, 30, No 6, 1278-1281

Abstract : The complicated metallic model, offered earlier (R.Zh.Khim. 1955, 3295) is applied to π-electrons in trans-acrolein molecule. The depth of the hole produced by electronegativity of O atom is equal to 0.083 atomic units. Following values were found:* ν= 52,200cm^{-1}, corresponding oscillator power f = 0.94 - 0.97; π-electron dipole moment = 0.71 - 0.72 atomic units (experiment = 50.700 cm^{-1}, f = 0.69, total dipole moment of the molecule = 1.19 atomic units). Comparison with the experiment shows that μ is defined chiefly by π-electron displacement toward O atom.
*frequency of the longest wave electronic transition...

Card 1/1

-5-

REKASHEVA, T.N.

A reply to F.F. Cheshko's letter. Zhur. fiz. khim. 31 no.5:1169-1170 My '57. (MIRA 10:11)

(Benzene)

REKASHEVA, YANKOVSKIY

USSR/Human and Animal Morphology - Transfusions and Blood Substitutes R-4

Abs Jour : Referat Zhur - Biologii, No 16, 1957, 70621

Author : Rekasheva, Yankovskiy
Title : Cellulose-Sulfur Ethers as Blood Stabilizers

Orig Pub : Fisiol. zh. AN USSR, 1956, 2, 91-97

Abstract : A new preparation of an active synthetic specific blood stabilizer- sinantrol (S). Least toxic and most active are S-20 and 21, obtained from sulphonation of wood cellulose-sulfite and the products of its depolymeryzation. In vitro they are 50 times more active than citrate. By introducing 4-6 mg/kg of these preparations into rabbits and cats, an effective lowering of blood coagulation was noted for 2-5 hrs., without side reactions. For human blood conservation, there is 10-13 times less S needed than citrate. S does not show a negative influence on tissue cultures and on the phagocytic activity of

Card 1/2 - 114 -

BRINZEU,P.; RUSSO,I.; MARCU,M.; REKASI,C.

Intestinal infarction of venous origin. Rumanian M. Rev. 4 no.1: 88-90 Ja-Mr '60.

1. 2nd Surgical Clinic of the Medical Institute in Timisoara.
(INTESTINES blood supply)
(INFARCTION etiol.)

REKASI, Tibor; CZEGKA, Miklos

Experiments on the rapid pretreatment of fruits in sugar juice. Konzerv paprika no.2:51-57 Mr-Ap '63.

1. Muszaki Egyetem Elelmiszerkemiai Tanszek.

REKASI, T.; CZEGKA, M.

Theoretical questions relating to vacuum diffusion. Konzerv paprika no. 6:133-193 N-D '63.

1. Chair of Food Chemistry, Budapest Technical University.

REKATS, V. G.

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jun - 3 Feb '60.

234. G. I. Pshenitsanos (Moscow): Large deflections of reinforced shallow cylindrical shells.

235. Ya. P. Rabinovich (Moscow), Yu. N. Rabotnov (Novosibirsk): Creep strength of turbine discs.

236. A. I. Rabotnikov (Odessa): Flow and consolidation of sands under the action of seepage forces.

237. Yu. N. Rabotnov (Novosibirsk): Creep.

238. R. M. Rappoport (Leningrad): Some problems in the theory of elasticity concerning the design of rock foundations.

239. R. M. Rappoport (Leningrad): Some difference equations of structural mechanics.

240. Kh. A. Rakhmatulin (Moscow): On the propagation of elasti-plastic waves in a half-space.

241. Kh. A. Rakhmatulin (Moscow): Propagation of disturbances in continuous media.

242. V. P. Raiuk (Sverdlovsk): Earth pressure on flexible retaining walls.

243. V. L. Rvatsev (Berdiansk): On the pressure of a punch on an elastic half-space.

244. P. A. Rebinder (Moscow): Types of high molecular and dispersed structures and their characteristic mechanical properties.

245. E. Reuss (Budapest): On the influence of the maximum principal stress on the fatigue strength.

246. V. G. Rekats (Moscow): The application of the method of homogeneous solutions to some two-dimensional problems of the theory of elasticity.

247. A. R. Rzhanitsin (Moscow): Some three-dimensional problems of limit equilibrium in rigid, plastic solids.

248. M. I. Rozovskii (Dnepropetrovsk): On the application of the Volterra-Rabotnov principle to Arutiunian's creep theory of concrete.

249. M. I. Rozovskii (Dnepropetrovsk): Some problems of the integral operator theory of creep.

250. A. G. Rozrovtsev (Leningrad): Design of wide-flange beams for bending and temperature effects.

251. D. D. Lapegin (Leningrad): The experimental study of the deformations of rock foundations.

252. O. M. Sapondzhian (Erevan): The determination of the deflections of a simply supported plate by the method of successive approximations.

253. V. S. Sarkisian (Erevan): Torsion of anisotropic prismatic bars of elongated cross section.

254. Ya. A. Sveklov (Kaliningrad): The impact of a double punch on a half plane.

255. I. V. Svirskii (Kazan): The use of similarity considerations for improving the convergence in the design of shells by successive approximations.

256. A. M. Senkov (Leningrad): Stability of cellular structures built on soft ground.

257. R. V. Serebrianii (Moscow): Bending of thin hinge-joined slabs supported by an elastic layer of finite thickness.

258. B. R. Seth (Kharagpur): Finite bending of plates into cylindrical shells.

259. A. P. Siniitsii (Moscow): A beam on a two-layer half space beyond the elastic limit.

260. V. P. Sinitsin (Leningrad): Some problems of creep and consolidation of saturated soils.

261. M. G. Slobodianskii (Moscow): Determination of the natural frequencies of plates of constant and variable thickness.

262. N. K. Snitko (Leningrad): Dynamic problems of the design of retaining walls and soil foundations under impact loads.

263. N. K. Snitko (Leningrad): Solution of some dynamic problems of stringer structures by the method of initial parameters.

264. V. V. Sokolovskii (Moscow): On some problems of the theory of plasticity and soil mechanics.

265. M. A. Soponeshch (Petrozavodsk): On a class of solutions of boundary value problems in plasticity.

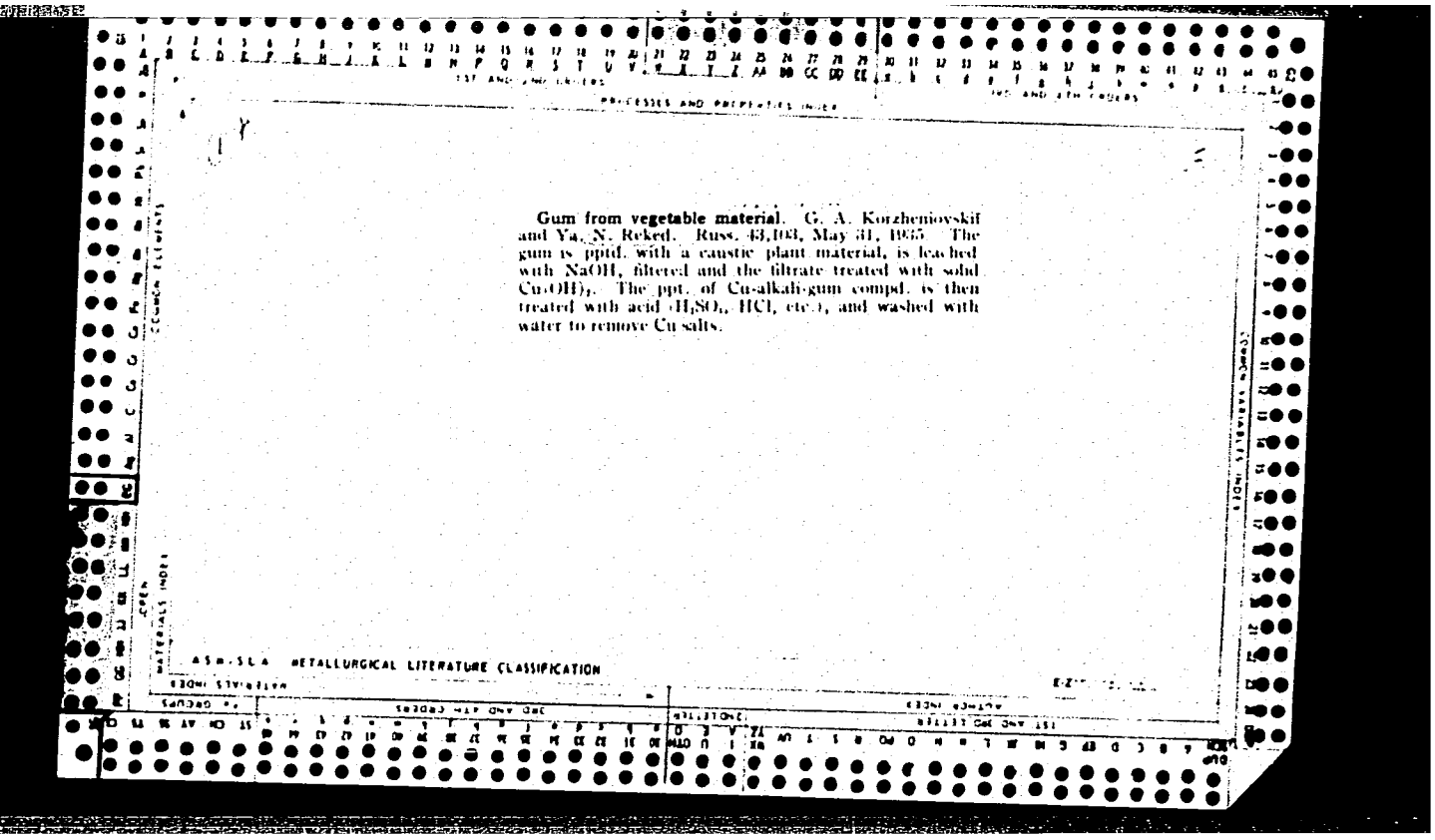
266. E. S. Sorokin (Moscow): The effect of internal friction on the stresses in beams and plates under impulsive loading.

267. N. I. Spiridonova (Sverdlovsk): Stresses in ellipsoidal shells subjected to internal pressure.

REKAYKIN, P., inzh.

Textbook on grain drying ("Grain drying and grain dryers" by A.P. Gerzhoi, [kand.tekhn.nauk]; V.F.Samochetov, [inzh]. Reviewed by P.Rekaikin). Muk.-elev.prom. 25 no.12:29-30 D '59. (MIRA 13:4)

1. Odesskiy tekhnologicheskiy institut im. I.V.Stalina.
(Grain--Drying)
(Gerzhoi, A.P.)
(Samochetov, V.F.)



Gum from vegetable material. G. A. Korzhenovskif and Ya. N. Reked. Russ. 43,103, May 31, 1955. The gum is pptd. with a caustic plant material, is leached with NaOH, filtered and the filtrate treated with solid $Cu(OH)_2$. The ppt. of Cu-alkali-gum compd. is then treated with acid (H_2SO_4, HCl, etc.), and washed with water to remove Cu salts.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

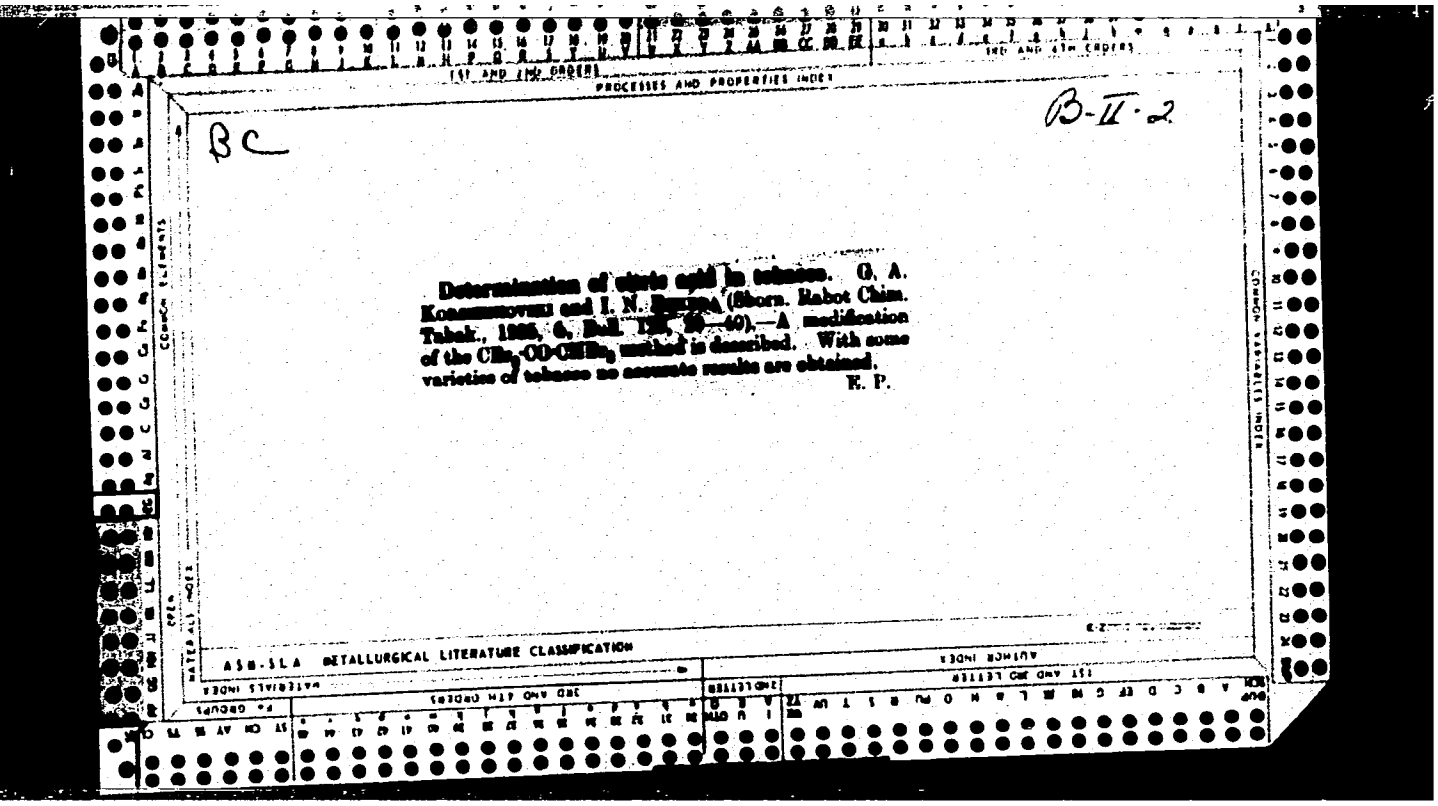
PROCESSES AND PROPERTIES INDEX

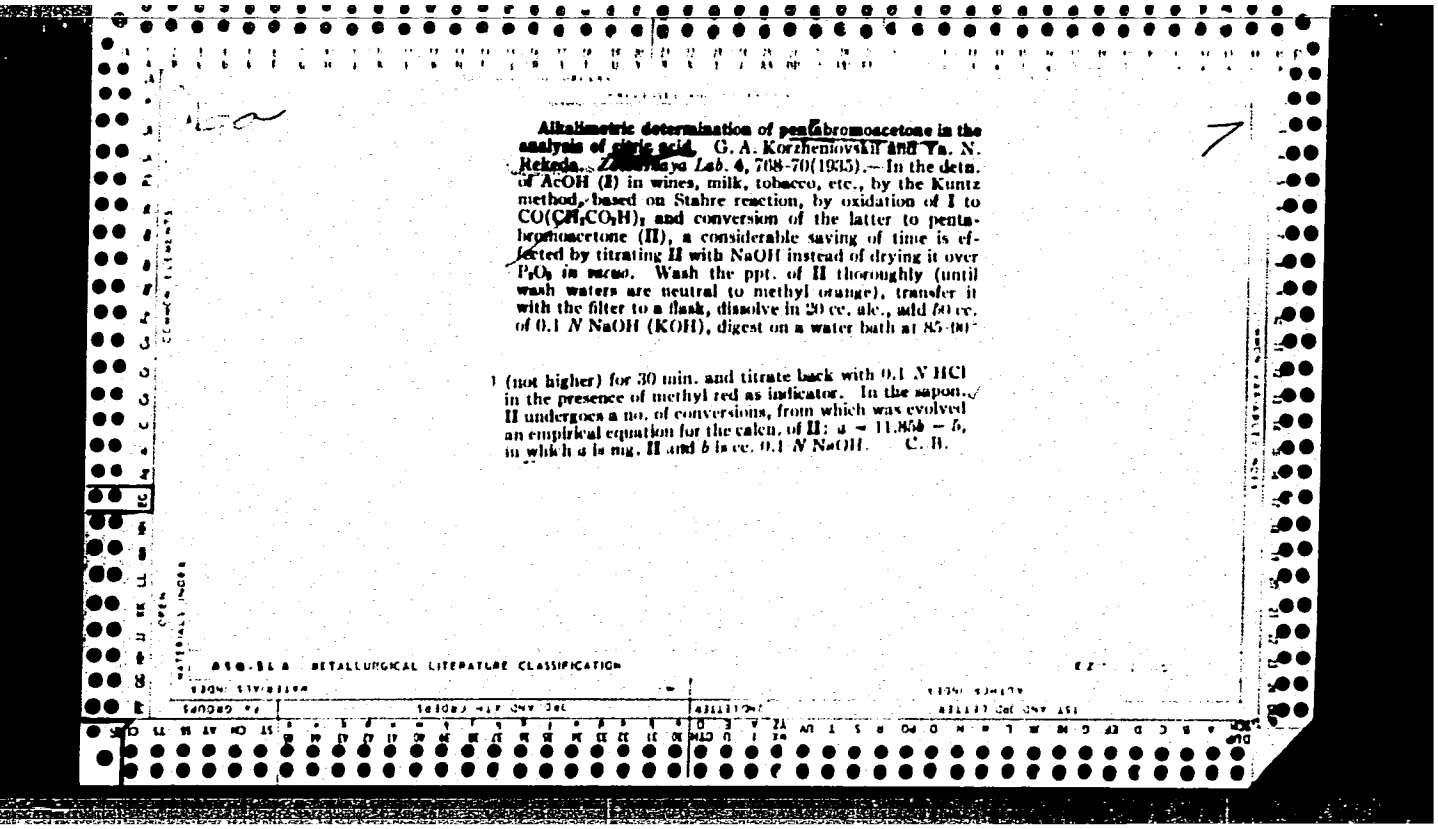
CA

17

Determination of citric acid in tobacco. G. A. Korshenlovskii and I. N. Rekeda. *Sborn. Rabot Khim. Tabak. 6, Bull.* 125, 29–40 (1935). A modification of the $CBr_3CO \cdot CHBr_2$ method is described. With some varieties of tobacco no accurate results are obtained. B. C. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





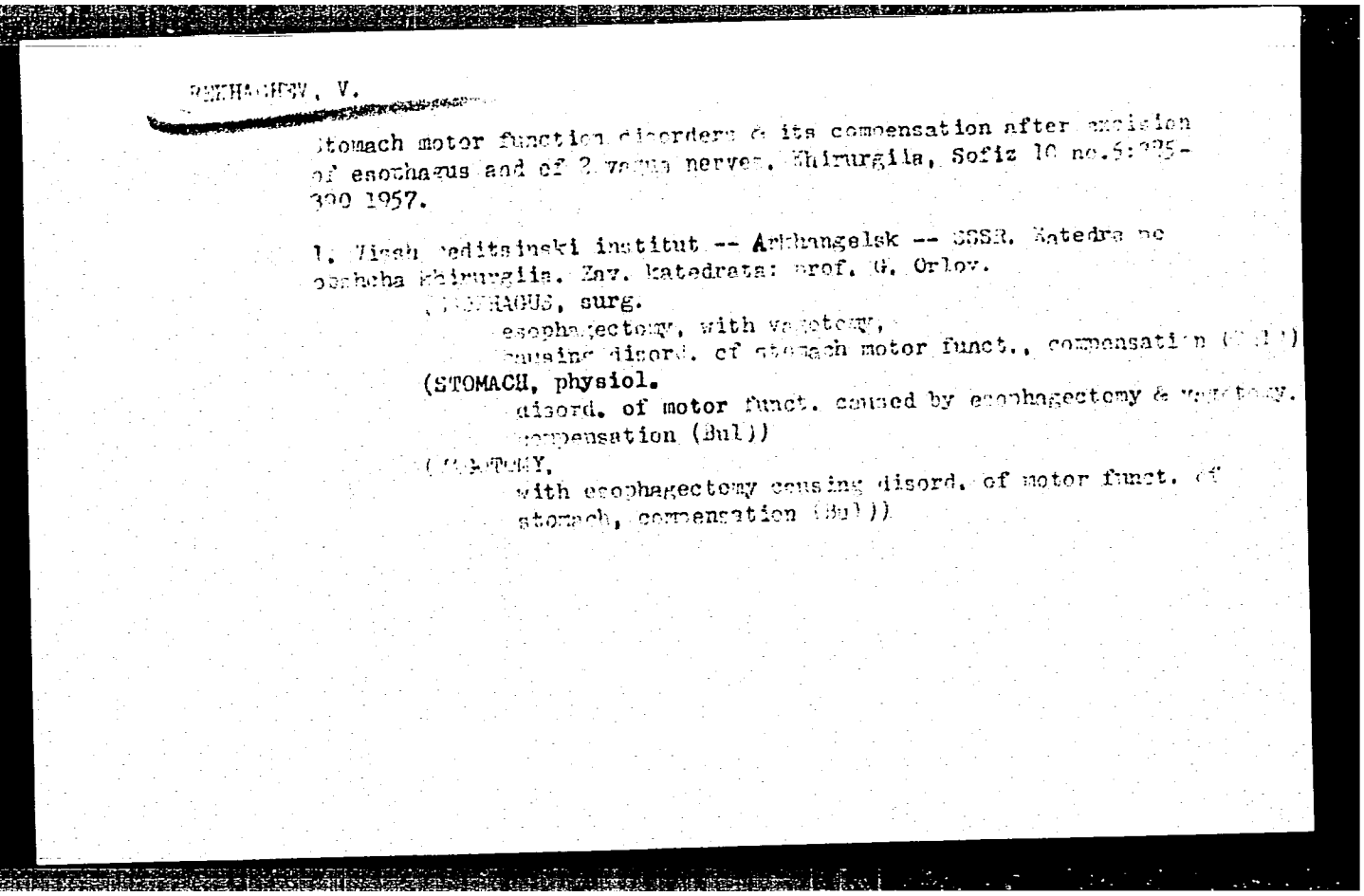
Alkalimetric determination of pentabromoacetone in the analysis of citric acid. G. A. Kozhenlovskii and Ya. N. Rekeda. *Zavodskaya Lab.* 4, 708-70(1935).—In the detn. of AcOH (I) in wines, milk, tobacco, etc., by the Kuntz method, based on Stahre reaction, by oxidation of I to $CO(CH_2CO_2H)_2$ and conversion of the latter to pentabromoacetone (II), a considerable saving of time is effected by titrating II with NaOH instead of drying it over P_2O_5 *in vacuo*. Wash the ppt. of II thoroughly (until wash waters are neutral to methyl orange), transfer it with the filter to a flask, dissolve in 20 cc. alc., add 50 cc. of 0.1 *N* NaOH (KOH), digest on a water bath at 85-90° (not higher) for 30 min. and titrate back with 0.1 *N* HCl in the presence of methyl red as indicator. In the sapon. of II undergoes a no. of conversions, from which was evolved an empirical equation for the calcn. of II: $a = 11.85b - 5$, in which a is mg. II and b is cc. 0.1 *N* NaOH. C. B.

REKER, CIRIL

14113* (Iron Ores of Macedonia.) O železovih rudah Makedonije. Ciril Reker. *Rudarsko-Metalurski Zbornik*, 1954, no. 1, p. 27-52.

Analyses and tests to determine feasibility of commercial processing of ores.

REKEVICHYUS, K. I. Cand Phys-Math Sci -- (diss) "Qualitative Study of Self-Excited [redacted] Generators of Electrical Oscillations With a Complex Step-like Form." [redacted] Vil'nyus, 1957. 13 pp with illustrations, 22 cm. (Min of Higher Education USSR, Vil'nyus State Univ im V. Kapsukas), 100 copies (KL, 26-57, 104)



ZUKHAKHEV, V.

Stomach motor function disorders & its compensation after excision of esophagus and of 2 vagus nerves. Khirurgiia, Sofiz 10 no.5:925-930 1957.

1. Vissh meditsinski institut -- Arkhangelsk -- USSR. Katedra po obshcha khirurgiia. Zav. katedrata: prof. G. Orlov.

(ESOPHAGUS, surg.
esophagectomy, with vagotomy, causing disord. of stomach motor funct., compensation (Bul))
(STOMACH, physiol.
disord. of motor funct. caused by esophagectomy & vagotomy, compensation (Bul))
(VAGOTOMY,
with esophagectomy causing disord. of motor funct. of stomach, compensation (Bul))

YERSHOVA, K.S.; REKHARSKAYA, V.M.

Characteristics of water in malacons. Min.syr'e no.6:114-117 '62. (MIRA 16:4)
(Malacon)

S/719/62/000/070/001/001
I044/1244

AUTHOR: Rekharskiy V.,

TITLE: The role of molybdenite in the formation of the Liangar deposit

SOURCE: Akademiya nauk SSSR. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii. Trudy no. 70, 1962. Voprosy geokhimii, no. 3, 182–194

TEXT: The Liangar deposit is one of the most investigated scheelite-molybdenite deposits of Central Asia. It is located in the intrusive Akatau massif. Besides field investigation most of the research was done by means of polished sections and thin sections. The main post magmatic formations are skarns and pegmatites. Mineralization occurred in a post skarn stage accompanied by intrusion of feldspar quartz veins. Also formed were quartz-amphibole-feldspar metasomatites in pyroxenes and garnets of the skarns. Precipitation of molybdenite occurred in two phases: the alkali feldspar- quartz phase, and the albite-oligoclase phase. In the first, molybdenite predomibates over scheelite; in the latter the opposite is the case. Molybdenite was precipitated subsequent to the scheelite, but earlier than iron and copper sulphates. The connection of the mineralization with the feldspar-quartz phase, and the miolybdenite-scheelite relations, are both explained by the acidic qualities of tungsten and molybden unions (the latter being more acidic). There are 8 figures.

Card 1/1

REKHARSKIY, V.I.

Place of molybdenum in the formation of the Lyangar deposit. (MIRA 15:9)
Trudy IGEM no.70:182-194 '62.
(Nura-Tau--Molybdenum ores)

REKHARSKIY, V.I.

Principal paragenetic associations of molybdenite in the Chorukh-Dayron deposit. Trudy IGEM no.99:55-59 '63. (MIRA 16:9)
(Chorukh-Dayron region--Molybdenite)

VINOGRADOV, A.P.; KORZHINSKIY, D.S.; SMIRNOV, V.I.; SHCHERBAKOV, D.I.; AZDIN'YAN, N.Kh.; VINOGRADOV, V.I.; VOL'FSON, F.I.; GENKIN, A.D.; DANCHEV, V.I., LUKIN, L.I.; OZEROVA, N.A.; PEREL'MAN, A.I.; REKHARSKIY, V.I.; SMORCHKOV, I.Ye.; FEODOT'YEV, K.M.; SHADLUN, T.N.; SHIPULIN, F.K.

Aleksandr Aleksandrovich Saukov, 1902-1964; obituary. Geol. rud. mestorozh. no.1:124-125 Ja-F '65. (MIRA 18:4)

REZNIKOVA, V.I.; DIDLER, V.V.

Feldspar-quartz formation of molybdenum deposits. Geol.rud.mestorozh. 7 no.4:91-93 Jl-Ag '65. (MIRA 18:8)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva.

REKHARSKIY, V.I.

Relationship of molybdenite and scheelite with the feldspar-quartz stage of mineralization in some skarn-type rare metal deposits. Dokl. AN SSSR 139 no.4:963-965 Ag '61. (MIRA 14:7)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR. Predstavleno akademikom D.I. Shcherbakovym.
(Molybdenite) (Scheelite) (Ore deposits)

S/081/62/000/003/027/099
B150/B101

AUTHORS: Rekharskiy, V. I., Krutetskaya, O. V.

TITLE: Uranium in rocks of the Southwest spurs of the North Tien Shan range

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 117 - 118, abstract 5G21 (Izv. AN SSSR. Ser. geol. no. 7, 1961, 58-71)

TEXT: Results are submitted of the determination of uranium in 2591 samples of sedimentary, effusive, and intrusive rocks. A method is described for the selection of assays and the analytical determination in them of uranium. The average content of U in rocks of this region is $2.1 \cdot 10^{-4}$%. Intrusive rocks are characterized by the higher content of U ($2.8 \cdot 10^{-4}$%) than in the effusive ($1.8 \cdot 10^{-4}$) and the sedimentary ($1.6 \cdot 10^{-4}$). Among the latter the highest average content of U is recorded in the carbonaceous-siliceous schists, less is found in the organogenic limestones, clays, still less in the sandstones, siltstones and dolomites, and the very least content is in the siliceous metamorphized schists and

Card 1/2

REKHARSKIY, V.I.

Some features in the formation of albite in aureoles about veins. Dokl. AN SSSR. 118 no.4:774-777 F '58. (MIRA 11:4)

1. Institut geologii rudnykh mestorozhdeniy petrografii, mineralogii i geokhimii Akademii nauk SSSR. Predstavleno akademikom. D.I. Shcherbakovym.

(Albite)

AUTHOR: Rekharskiy, V. I. 20-118-4-41/61

TITLE: Some Features in the Formation of Albite in Aureoles Around Veins (Nekotoryye osobennosti obrazovaniya al'bita v okolozhil'nykh oreolakh)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 774-777 (USSR)

ABSTRACT: In the aureoles of hydrothermally changed rocks often a new-formed albite is detected which mostly substitutes orthoclase and plagioclase. Since its occurrence is often assumed to be connected with the ore-vein forming solutions the explanation of the peculiarities mentioned in the title will also contribute to a better characterization of these hydrothermal solutions. The author describes several rules governing the albite formation and -distribution in the south-western spurs of Tyan'-Shan'. The veins of the rarer metals here consist of calcite, pyrites, molybdenite, sphalerite, galenite, and other minerals. They are stratified in intrusive upper-Paleozoic quartz-porphyries of pink-reddish color with porphyry-like structure and are from several centimeters up to several decimeters thick. Potassium exceeds sodium in the unchanged rocks.

Card 1/4

Some Features in the Formation of Albite in Aureoles Around Veins

The substitution of the primary rock-forming minerals by secondary ones is most intensive in the immediate vicinity of veins. In the aureole around some veins brown albite as well as the calcite associated with it is to a great extent developed, in the others, however, sericite and quartz, as a rule without albite. These zones alternate in vertical and horizontal direction. In various zones of albite formation albite substitutes various rock-forming minerals. There are in this connection 2 basic types of hydrothermally changed rocks in which albite is the main metasomatic mineral. 1) In the zones of the first type albite develops in the disseminations of potash feldspar and substitutes 10-40% of the total volume of all minerals of the rock (figure 1, A). In these zones the ratio Na_2O : K_2O rises up to 1,5 - 17,0. 2) In zones of the second type albite substitutes not only orthoclase, but also oligoclase. Furthermore albite develops also in the main mass of the rocks and partly also instead of quartz. The albite quantity amounts here to 30-70%, sometimes even to 80-85% of the total rock volume (figure 1, B). Quartz is here most intensively corroded. The structure of such domains is fine-grained. The ratio Na_2O : K_2O rises here up to 7,0-16,0, as above. The alkali quantity is equal to that of new rocks or

Some Features in the Formation of Albite in Aureoles Around Veins

a little higher. These data show that albite substitutes the three mentioned minerals in the zones of the aureole in which sodium exceeds potassium. Albite substitutes orthoclase independently of the fact whether the sodium content in the zones in question is higher or lower than in new rocks. Oligoclase is, however, substituted by albite only if the sodium content is higher than in new rocks. The development of the greatest albite quantities is governed by certain rules only in domains where not only the ratio $Na_2O : K_2O$ rises rapidly, but also the Na-content. The zones of the albite- and carbonate development occur more and more rarely with the growing distance from the above mentioned domains. The alkaline content decreases, the mentioned ratio is rapidly reduced. The substitution of the albite formation zones by the zones of sericite- and quartz formation proves the alteration of the alkali-concentration in the metamorphizing solution (figures 1 B - B', A - A', V - - V'). Apparently the different alterations of the sodium- and potassium concentration cause the zone formation in the aureoles and influence to a certain extent the sequence of the sedimentation and the spatial distribution of the minerals in the veins. There are 1 figure and 3 references, 2 of which are Soviet.

Card 3/4

20-118-4-41/61

Some Features in the Formation of Albite in Aureoles Around Veins

ASSOCIATION: Institute for Geology of Mineral Deposits, Petrography, Mineralogy, and Geochemistry AS USSR (Institut geologii rudnykh mestorozhdeniy petrografii, mineralogii i geokhimii Akademii nauk SSSR)

PRESENTED: August 17, 1957, by D. I. Shcherbakov, Academician

SUBMITTED: August 8, 1957

AVAILABLE: Library of Congress

Card 4/4

REKHARSKIY, V.I.

Possible redeposition of sulfides under hypogene conditions.
Izv. AN SSSR. Ser. geol. 22 no.9:44-48 S '57. (MIRA 11:1)

1.Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva.
(Sulfide ores)

REKHARSKIY, V.I.

11-9-4/14

AUTHOR: Rekharskiy, V.I.

TITLE: On the Possibility of Sulfide Re-Deposition in Hypogene Conditions (O vozmozhnosti pereotlozheniya sul'fidov v gipogennykh usloviyakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1957, # 9, p 44-48 (USSR)

ABSTRACT: The author studied interrelations between sulfide veins and rare-metal streaks which cross the veins in the south-western slopes of the Northern Tyan'-Shan'. The veins occur mainly in eruptive rocks of Upper-Paleozoic age. The sulfide veins are built of pyrite, ferriferous sphalerite and galenite. The rare-metal streaks are from 0.2 to 1.5 cm thick and contain calcite, arsenopyrite, sericite, pyrite, galenite, light sphalerite, chalcopyrite, quartz, ankerite, chlorite, fluorite, molybdenite, etc. The quantitative ratios of pyrite, sphalerite and arsenopyrite in the sulfide veins and streaks are shown in Table 1 of the paper. Analyzing the material characterizing interrelations between the sulfide veins and rare-metal streaks the author derived a conclusion that hydrothermal rare-metal solutions possessing high concentration of carbon diocide anions could dissolve pyrite,

Card 1/2

On the Possibility of Sulfide Re-Deposition in Hypogene Conditions

sphalerite and arsenopyrite in the veins with a subsequent re-deposition of them during the origination of the rare-metal streaks.
The article contains 6 photos, 1 table and 8 Slavic references.

ASSICIATION: Institute of Geology of Mineral Deposits, Petrography, Mineralogy and Geochemistry of the AN USSR (Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN USSR),Moscow

SUBMITTED: 5 March 1957

AVAILABLE: Library of Congress

REKHARSKIY, V.I.

Characteristics of the distribution of elements in igneous rocks from the viewpoint of the periodic concentration coefficient. Dokl. AN SSSR 156 no. 3:594-597 '64. (MIRA 17:5)

1. Predstavleno akademikom D.I.Shcherbakovym.

REKHARSKIY, V.I.; KRUTETSKAYA, O.V.

Some data on the coloring of sulphates by ilsemannite.
Dokl.AN SSSR 144 no.4:903-906 Je '62. (MIRA 15:5)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR. Predstavlenc akademikom D.I.Shcherbakovym.
(Sulfates) (Ilsemannite)

REKHARSKIY, V.I.

Behavior of pitchblende under the effect of hydrothermal solutions with the fluorine content. Geol. rud. mestorozh. no.1:92-97 Ja-F '60. (MIRA 13:7)

(Uraninite)

REKHARSKIY, V.I.; KRUTETSKAYA, O.V.; DUBROVA, I.V.

Redeposition of molybdenum and uranium by hydrothermal bicarbonate solutions. Geol. rud. mestorozh. no.4:103-110 Jl-Ag '59. (MIRA 13:1)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva.
(Molybdenum) (Uranium)
(Sedimentation and deposition)

3(5) SOV/11-59-8-3/17

AUTHOR: Rekharskiy, V.I.

TITLE: On the Question of Regularity of Distribution of Molybdenum and Uranium in Mineralized Zones

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 8, pp 20 - 33 (USSR)

ABSTRACT: In this article the author deals with the problem of regularity of distribution of molybdenum and uranium in mineralized zones. Molybdenite, pitchblende and uraninite were often found in the same molybdenum and uranium ore deposits. The author also observed the simultaneous occurrence of these minerals in mineralized zones usually formed of different hydrothermally metamorphized rock formations associated with a variety of acid intrusive and effusive Paleozoic formations of granite-porphyres, quartz porphyres, felsites, quartz syenite-porphyres and dacite-porphyres. Thin fissures of these mineralized zones are filled with pyrite, molybdenite, pitchblende (nasturan), calcite,

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On the Question of Regularity of Distribution of Molybdenum and Uranium in Mineralized Zones

galenite, sphalerite, chalcopyrites, sericite, quartz, albite, fluorite and barite. Of all these minerals, molybdenite and pitchblende are most often found together and either form molybdenite-pitchblende veins or form collomorphic secretion together with galenite, pyrite, sphalerite calcite and other minerals. Molybdenite usually surrounded grains of pitchblende and a microscopic study showed that in some slides a gradual transition from molybdenite to pitchblende can be observed and the author supposes that such formations are a product of coagulation of complexly composed gels which separated into different minerals in the process of aging. Calcite, albite, and galenite are most often found in paragenetic association with pitchblende and sericite and quartz (with molybdenum). Pyrite is also paragenetically connected with both minerals. Metamorphic occurrence of these minerals and the regularity of their occurrence in relation to the character of transformation of en-

On the Question of Regularity of Distribution of Molybdenum and Uranium in Mineralized Zones

closing rock formations is described in detail. It can thus be said, that these minerals were secreted from the solution almost at the same time and there is a close connection between the mineral forming process and the process of hydrothermal metamorphosis of the enclosing rock formations. A detailed mineralogical and petrographical study of the distribution of molybdenite and pitchblende, as well as the chemical and spectral analyses, were conducted in the laboratory of the Institut geologii rudnykh mestorozhdeniy, petrografii mineralogii i geokhimii AN SSSR (Institute of Geology of Mineral Deposits, Petrography, Mineralogy and Geochemistry of the AS USSR) (IGEM) by O.V. Krutetskaya, V.M. Nekrasova, and A.S. Dudykina. Summing up the results of these observations, the author suggests that the concentration of molybdenum occurs in zones of sericitized and quartzized rock where the formation of the second generation sericite occurs simultaneously with that of metaso-

On the Question of Regularity of Distribution of Molybdenum and Uranium

matic sericite developing in the oligoclase. Such concentration also occurs in zones of transition of sericitized and quartzized rock into albitized and carbonized formations, that is in lower parts of these metamorphized rocks where checkered albite, developing on orthoclase albite, occurs. As to uranium, its highest content is associated with zones of intensely albitized and carbonatized rock. An increase in uranium from the lower to the upper part represents the optimum conditions of sedimentation of uranium oxides from the hydrothermal solutions. There are 8 photographs, 3 sets of diagrams, and 15 references, 11 of which are Soviet, 3 American and 1 Belgian.

REKHARSKIY, V.I.; KRUTETSKAYA, O.V.

Uranium in rocks of the southwestern offshoots of the northern Tien Shan. Izv.AN SSSR.Ser.geol. 26 no.7:48-71 Jl '61. (MIRA 14:7)

(Tien Shan—Uranium)

REKHARSKIY, V.I.

Characteristics of the distribution of molybdenum, uranium, copper, and other elements in rocks as revealed by a study of the southwestern spurs of the northern Tien Shan. Izv. AN SSSR Ser. geol. 30 no.1:44-66 Ja '65 (MIRA 18:2)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva.

REKHARSKIY, V.I.; KRUTETSKAYA, O.V.

Molybdenum in rocks of the southwestern spurs of the northern Tien Shan. Trudy IGEM no.46:55-76 '60. (MIRA 14:1)
(Tien Shan--Molybdenum) (Rocks--Analysis)

REKHELIS, S.D.

Echinococcal cysts of the thyroid gland. Khirurgiia, no.11:75 N '55. (MLRA 9:6)

1. Iz Kagul'skoy gorodskoy bol'nitsy Moldavskoy SSR.
(THYROID GLAND--HYDATIDS)

REKHELIS, A.D.; KAUFMAN, M.A.

Use of peritoneal laminas in treating thermal burns. Zdravo-okhraneniye 6 no.1:38-41 J-F'63. (MIRA16:8)

1. Iz bol'nitsy skoroy i neotlozhnoy meditsinskoy pomoshchi Kishineva (glavnyy vrach - V.I.Zhosan).
(BURNS AND SCALDS) (SURGERY, PLASTIC)

REKHELIS, S. D.

REKHELIS, S. D. "Penicillin therapy of purulent post-surgical infection", Trudy Kishinevsk. gos. med. in-ta, Vol 1, 1949, p. 305-15.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

REKHELIS, S.D.; KAUFMAN, M.A.

Isolated lymphogranulomatosis of the small intestine. Zdravookhranenie 4 no.5:57-59 S-O '61. (MIRA 14:11)

1. Iz bol'nitsy skoroy i neotlozhnoy meditsinskoy pomoshchi g.Kishineva (glavnyy vrach Ye.I.Roytburt).
(HODGKIN'S DISEASE) (INTESTINES--DISEASES)

L 10624-66 EWI(m)/EIC/EPF(n)-2/EWG(m)/EWP(t)/EWP(b) IJP(c) RDW/JD/WW/JG
ACC NR: AR5023527 SOURCE CODE: UR/0275/65/000/008/B038/B038

41

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 8B311

AUTHOR: Vyal'yamyae, G.; Kukk, V.; Rekhepapp, Yu.; Khaak, Kh.; Kheynrikhsen, V.

B

TITLE: Some problems in manufacturing from mercury selenide and testing film-type Hall generators

CITED SOURCE: Tr. Tallinsk. politekhn. in-ta, Seriya A, No. 213, 1964, 3-12

TOPIC TAGS: Hall generator, mercury compound, selenide

27 27

TRANSLATION: Experimental lots of HgSe film-type Hall generators were prepared by a vacuum vaporization method without disturbing the vacuum during the manufacturing process. It is proven that the generators with zinc contacts have higher stability than those with silver-paste contacts. Principal parameters of HgSe generators are tabulated. Bib 7.

SUB CODE: 10

Card 1/1

UDC: 621.382.61:546.23'49

L 31050-66 EWT(m)/EWP(t)/ETI LJP(c) JD

ACC NR: AR5028230 SOURCE CODE: UR/0272/65/000/008/0135/0135

AUTHOR: Vyal'yamyae, G.; Kukk, V.; Rekhepapp, Yu.; Khaak, Kh.; Kheynrikhsen, V.

TITLE: Some problems in the preparation and study of a mercury selenide Hall film transmitter

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 8.32.938

REF SOURCE: Tr. Tallinsk. politekhn. in-ta, v. A., no. 213, 1964, 3-12

TOPIC TAGS: Hall effect, metal film, mercury compound, zinc plating, selenide, Hall transmitter

ABSTRACT: Experimental samples of mercury selenide Hall film transmitters were prepared by the vacuum process method without interruption of the vacuum during the operation. The study showed that it is advisable to make the contacts of zinc. The stability of the transmitters with zinc contacts is higher than with contacts made of silver paste. Moreover, the contacts were not previously (before the paste was applied) exposed to air. A table giving the basic parameters of HgSe transmitters and their various characteristics is also included.

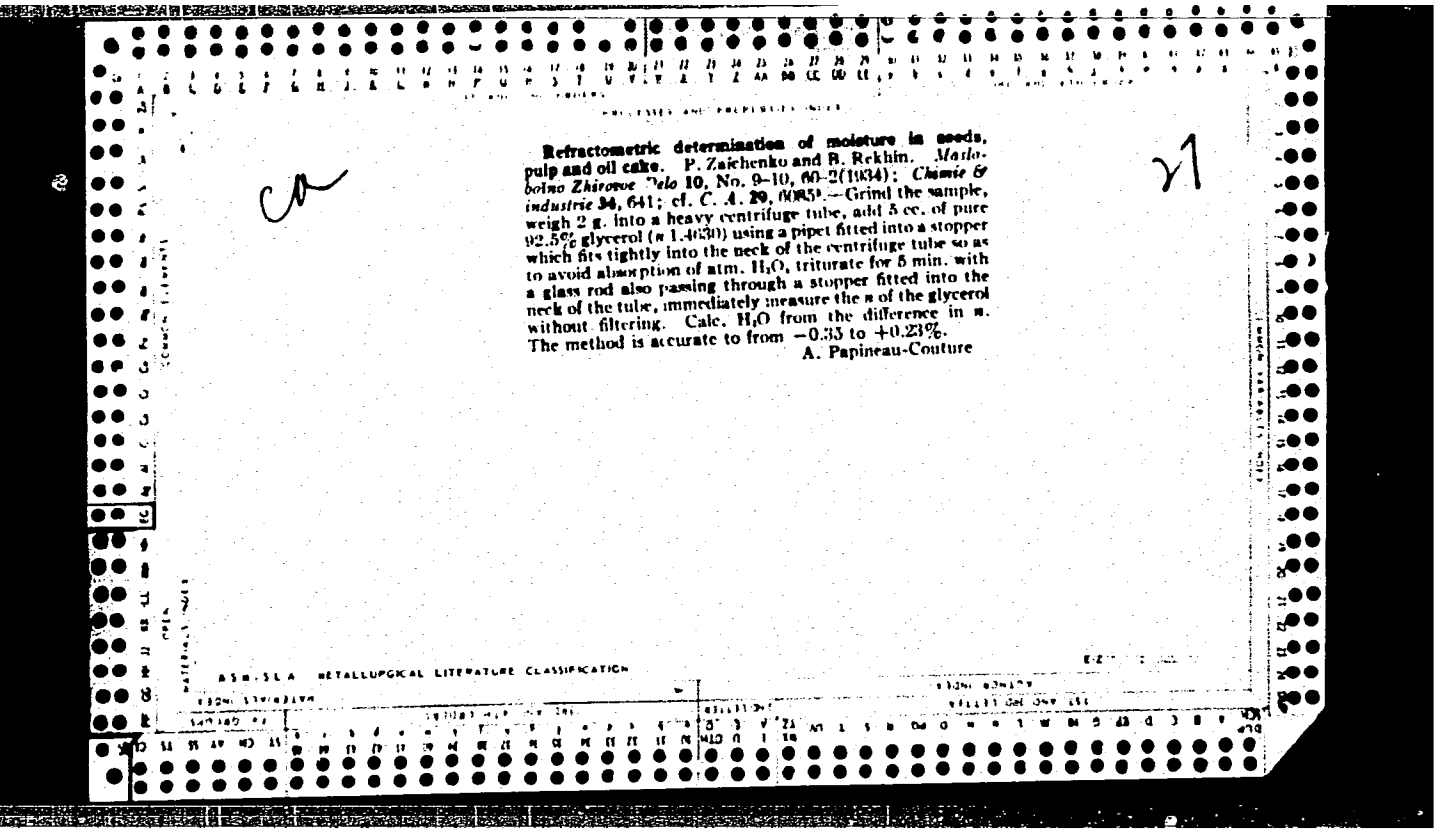
SUB CODE: 09 / SUBM DATE: none

Card 1/1 UDC 389:621.317.7:621.382.61

REKHES, L. Z.

K novym pobedam na fronte mekhanizatsii vodnogo transporta. [Towards new victories on the front of mechanization of waterway transportation]. (Vodnyi transport, 1938, no.11, p. 28-30).
DLC: HE561.R8

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.



Refractometric determination of moisture in seeds, pulp and oil cake. P. Zaichenko and B. Rekhin. *Maslobolno Zhirovoe Delo* **10**, No. 9–10, 60–2(1934); *Chimie & industrie* **34**, 641; cf. *C. A.* **29**, 6085⁹.—Grind the sample, weigh 2 g. into a heavy centrifuge tube, add 5 cc. of pure 92.5% glycerol (n 1.4630) using a pipet fitted into a stopper which fits tightly into the neck of the centrifuge tube so as to avoid absorption of atm. H_2O, triturate for 5 min. with a glass rod also passing through a stopper fitted into the neck of the tube, immediately measure the n of the glycerol without filtering. Calc. H_2O from the difference in n. The method is accurate to from −0.33 to +0.23%.

A. Papineau-Couture

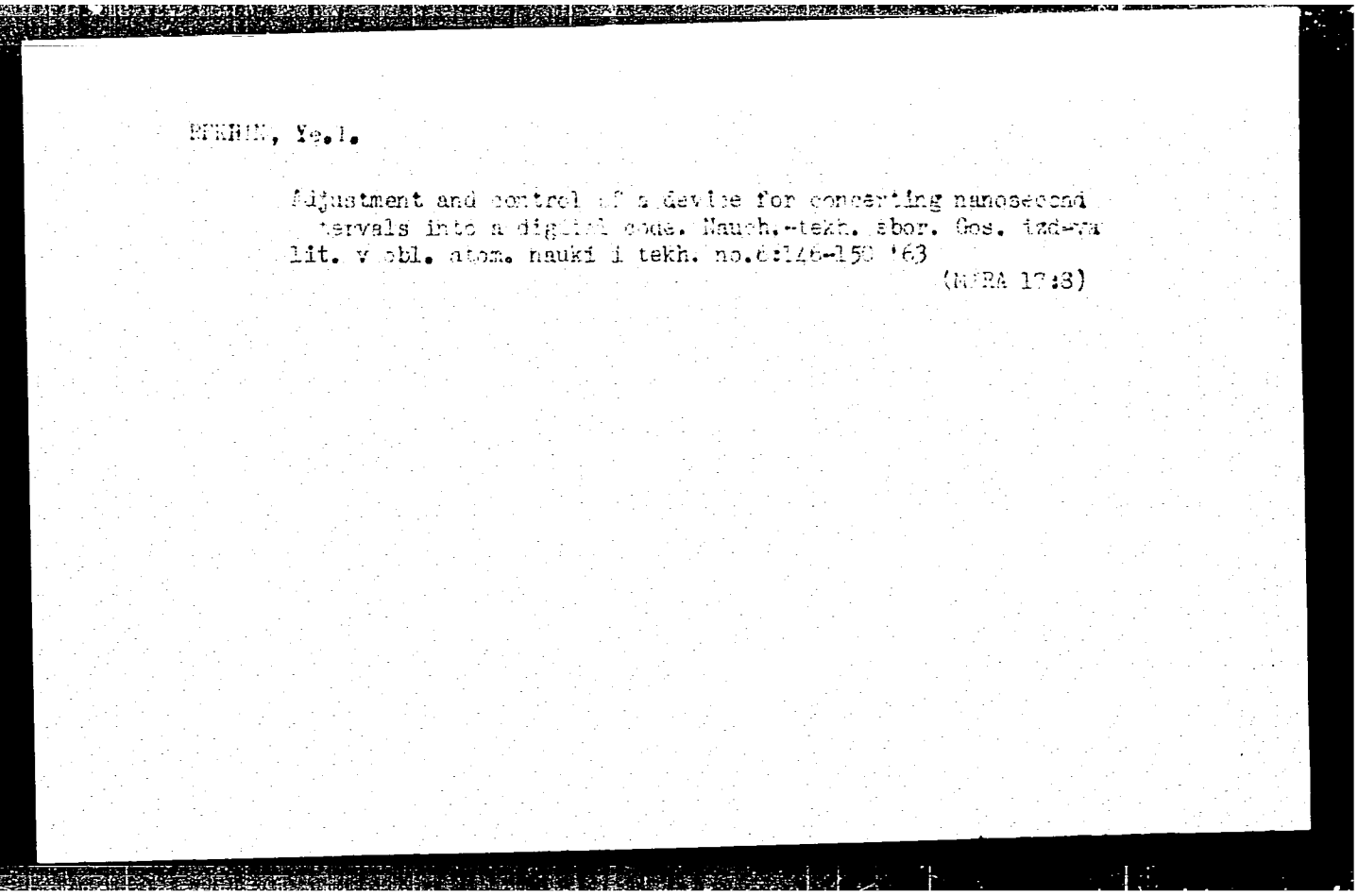
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

REKHIN, Ye.I.

Nonoverloading linear pulse amplifier. App.dlia iad. spek. no.1:61-76 '60. (MIRA 14:8)
(Amplifiers (Electronics))

REKHIN, Ye.I.; PANKRATOV, V.M.; KRASHENINNIKOV, I.S.

Converter of time intervals to digital code. Mnogokan. izm. sist. v iad. fiz. no.5:38-57 '63. (MIRA 16:12)



BYKHIN, Ye.I.

Adjustment and control of a device for converting nanosecond intervals into a digital code. Nauch.-tekh. sbor. Gos. izd-va lit. v obl. atom. nauki i tekh. no.6:146-150 '63
(MIRA 17:3)

ACCESSION NR: AT3012184 S/2963/63/000/005/0038/0057

AUTHORS: Rekhin, Ye. I.; Pankratov, V. M.; Krsheninnikov, I. S.

TITLE: Time interval to digital code converter

SOURCE: Mnogokanal'ny*ye izmeritel'ny*ye sistemy* v yadernoy fizike: Nauchno-tekhnicheskiy sbornik. Moscow, no. 5, 1963, 38-57

TOPIC TAGS: time pulse converter, digital code readout, scaler circuit, pulse height analyzer, nanosecond interval converter, neutron analysis, time of flight analysis

ABSTRACT: The described converter for the transformation of a nanosecond time interval into a pulse train, is claimed to be original both in circuitry and in technical characteristics (overshoot, channel width stability, construction of constant delay line, etc.), and is intended for large scale commercial production. Nanosecond intervals can be measured with this instrument accurate to about 1%.

Card 1/4 2

ACCESSION NR: AT3012184

The operating principles and the characteristics of the circuit elements employed (oscillator, triggering univibrator, coincidence circuit) are described and the linearity of the transformation discussed. The measurement accuracy and the operating reliability are claimed to be superior to those of time-to-amplitude converters. Another advantage is that the data can be read-out directly in digital code, making the equipment usable not only in multichannel pulse-height analyzers, but as individual scaler circuits (with a 0.25 microsecond resolution time) and for the measurement of both short (1--255 nanoseconds) and long (0.25--65 microseconds) time intervals. The equipment is intended for the analysis of fast neutrons by the time-of-flight method. The neutron energy range from 0.5 to 30 MeV, corresponding to a transit time from 100 to 10 nanoseconds (for a base separation of about 1 meter) is covered by 256 conversion levels with a level width of 1 nanosecond. Orig. art. has: 12 figures and 13 formulas.

Card 2/2

ACC NR: AR6018963 SOURCE CODE: UR/0271/66/000/002/A019/A020

AUTHOR: Rekhin, Ye. I.; Lyaporov, V. M.; Pankratov, V. M.

TITLE: Conversion of microsecond time intervals into a digital code

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs- 2A133

REF SOURCE: Tr. Soyuzn. n.-i in-ta priborostr., vyp. 2, 1965, 38-56

TOPIC TAGS: multichannel analyzer, time interval counter, time measurement, analog digital converter

ABSTRACT: The microsecond time interval to digital code converters are intended for measuring time intervals (flight transit time) between a certain initial time "zero" corresponding to a start signal and the time when a particle is registered by a detector. Since these intervals may be long (hundreds of milliseconds) it is expedient to shift the measurement start time along the time axis so that it coincides with the arrival of the "delayed" start signal. The time delay is implemented by the pulse counting method. The start signal starts the "clock," i.e., opens the gate between the pulse generator and the counter. The pulse generator uses a quartz crystal for frequency stabilization. It is expedient to have two measurement modes: fast and slow. In the fast time analysis mode the detector pulse after the arrival of the delayed start signal blocks the input at which it enters for the duration of registration. The timing pulse output is also blocked at this time. At the end of the

Card 1/2 UDC: 62-52:681.142.621

ACC NR: AR6018963

registration the address is updated (complemented) by the number of pulses which were passed when the input was blocked. In the slow time analysis mode the input gate is opened with the arrival of the delayed start signal at which time the detector signals are applied to the arithmetic unit. The next pulse in line shuts the input gate. The read and write operations are executed next. The "end of write" signal determines the number of the succeeding channel in the address register and after a short delay opens the converter input. Thus, the information stored in the arithmetic unit, until the arrival of the succeeding pulse, belongs to the channel whose number is determined by the previous cycle. The accuracy of the time interval measurements is determined. The effect of asynchronism between the starting and the delayed starting signals is described along with the effect of frequency divider jitter, detector synchronization, and blocking. The description and the characteristics of the converter, phasing pulse generator, and channel pulse shaper circuits are given. [Translation of abstract] 11 illustrations and bibliography of 6 titles. N. Z.

SUB CODE: 09

Card 2/2

L 05[illegible]-67
ACC NR: AR6033769 SOURCE CODE: UR/0058/66/000/007/A029/A029

AUTHOR: Kurochkin, S. S.; Belous, A. L.; Belov, A. F.; Krasheninnikov, I. S.; Rekhin, Ye. I.; Salichko, V. N.

TITLE: Multichannel and multidimensional analyzers AI-1024, AI-2048, and AI-4096

SOURCE: Ref. zh. Fizika, Abs. 7A257

REF SOURCE: Tr. 6-y Nauchno-tekhn. konferentsii po yadern. radioelektron. T. 3. Ch. 1 M., Atomizdat, 1965, 171-181

TOPIC TAGS: pulse analyzer, computer, multidimensional analyzer, AI-024 pulse analyzer, AI-2048 pulse analyzer, AI-4096 pulse analyzer, AI-1024-3 analyzer, AI-1024-2 analyzer, AI-2048-3 analyzer, AI-2048-2 analyzer, AI-4096-2 analyzer, AI-4096-3 analyzer

ABSTRACT: A study is made of AI-1024, AI-2048, and AI-4096 pulse analyzers, each of which features modifications. The AI-1024-3, AI-2048-3, and AI-4096-3 analyzers differ from AI-1024-2, AI-2048-2, and AI-4096-2 analyzers in that they have branching control devices and arithmetic devices and permit a more complex processing of information. The analyzers are based upon an active memory core made with ferrite tori with a 16 μsec registration cycle, an arithmetic device, a control device on

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L 08329-67
ACC NR: AR6033769

ferrite-type cores, a power supply unit ensuring the standard stabilized voltages ±6, ±12, and ±27 v. Counters of measured processes are used as input units. Analog as well as digital information output is possible. The main characteristics of the analyzers are presented in the form of tables. [Translation of abstract]

SUB CODE: 09

Card 2/2 nst

ACC NR: AR6018980 SOURCE CODE: UR/0271/66/000/002/B062/B062

AUTHOR: Krasheninnikov, I. S.; Kurochkin, S. S.; Rekhin, Ye. I.; Yeldashev, V. V.; Yefimchik, R. S.; Tuchina, A. S.

TITLE: Input devices of multichannel and multidimensional analyzers

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn. Abs. 2B447

REF SOURCE: Tr. Soyuzn. n.-i. in-ta priborostr., vyp. I, 1964, 79-103

TOPIC TAGS: channel analyzer, pulse height converter, circuit design

ABSTRACT: The characteristics of transistorized pulse height converters (PHC) are examined. The characteristics of measuring the pulse amplitude are described. The parameters of the best models of PHC are given. Various methods of constructing PHC systems are analyzed. The block diagrams and schematic diagrams of individual units of PHC are presented. The circuits of the coordinate converters (CC) of the detector are investigated. The structural diagram of a CC with the use of the matrix method of precoating is given. The errors of CC are analyzed. Batch-produced models of time converters for measuring microsecond and nanosecond time intervals are examined. The block diagrams and characteristics of the time converters are presented. [Translation of abstract] 12 illustrations and bibliography of 3 titles. V. M.

SUB CODE: 09

UDC: 681.142.621

Card 1/1

L 08381-67

ACC NR: AR6017638 SOURCE CODE: UR/0272/66/000/001/0170/0170

AUTHOR: Rekhin, Ye. I.; Lyaporov, V. M.; Pankratov, V. M. 40

TITLE: Conversion of microsecond time intervals into digital code

SOURCE: Ref. zh. Metrol. i izmerit. tekh., Abs. 1.32.1297

REF SOURCE: Tr. Soyuzn. n.-i in-ta priborostr. vyp. 2, 1965, 38-56

TOPIC TAGS: analog digital converter, particle detector, electronic measurement

ABSTRACT: Converters for changing microsecond time intervals into digital code are designed for measuring the periods of time (time of flight) between some "zero" moment determined by a start signal and the moment of particle registration by a detector. Since these periods may be comparatively long (hundreds of μsec), beginning of measurement should be shifted along the time axis to coincide with the arrival of a "delayed" start signal. Delay is achieved by scaling of timer pulses. The start signal triggers the "clock", i. e. opens the switch of the timer pulse generator so that pulses are fed to the address unit. Channel width stability is maintained by using quartz frequency stabilization. It is preferable to have both fast and slow measurement conditions. Distributions are measured cyclically in either case. Under conditions of fast time analysis, the detector pulse blocks the input to which it is fed and the timer pulse output during the registration period after arrival of the de-

Card 1/2 UDC: 389:539.1.075:531.76

L 08381-67

ACC NR: AR6017638

O

layed start signal. Upon completion of registration, the address is corrected (supplemented) by the number of channel pulses transmitted during the blocking time, i. e. during the dead time τm. Under slow analysis conditions, the input switch is opened with arrival of the delayed start signal, and the detector signals are sent to an arithmetic unit. The next channel pulse closes the input switch after which counting and recording take place. The signal for termination of recording sets the number of the following channel in the address register and opens the converter input after a brief delay. Thus the information stored in the arithmetic unit before arrival of the next channel pulse will belong to the channel whose number is determined by the preceding cycle. The accuracy in measurement of time intervals is determined, and the effect of asynchronous and delayed start signals is described as well as synchronization of the signal detector, the effect of factors d_1-d_3, the effect of instability in the fronts of the frequency divider and the effect of dead time. A description and characteristics are given for converters, phasing pulse generator, a circuit for shaping channel pulses and a conversion circuit. 1 illustration. Bibliography of 6 titles. [Translation of abstract]

SUB CODE: 09

Card 2/2 nst

L 4058-66 EWT(d)/EWP(1) IJP(c) BB/GG

ACCESSION NR: AT5024112 UR/3157/64/000/099/0001/0019

681.142.621

AUTHOR: Rekhin, Ye. I.; Lyaporov, V. M.; Pankratov, V. M.

TITLE: Conversion of microsecond time intervals into digital code

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Doklady, no. 99, 1964. Preobrazovaniye mikrosekundnykh intervalov vremeni v tsifrovoy kod, 1-19

TOPIC TAGS: analog digital converter, time interval counter, time measurement, electronic measurement

ABSTRACT: The authors discuss converters designed for measuring the time interval (transit time) between some "zero" time determined by the starting signal and the time when the detector records a particle. Accuracy in the measurement of such time intervals is analyzed with respect to factors which may cause nonlinearity in the converter. Converter characteristics are discussed and a block diagram of a converter is given. A brief description is given of a converter consisting of three functional circuits: phasing pulse generator, channel pulse shaper and converter.

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L 4058-66

ACCESSION NR: AT5024112

The various components which make up these sections are described and their important parameters are given. The author is grateful to L. S. Gorn for his careful examination of the manuscript. Orig. art. has: 11 figures, 29 formulas.

ASSOCIATION: none

SUBMITTED: 06Jul64 ENCL: 00 SUB CODE: DP, EC

NO REF SOV: 002 OTHER: 004

Card 2/2

29093
S/597/60/000/001/003/005
B102/B138

21.6000

AUTHOR: Rekhin, Ye. I.

TITLE: An overload-free pulsed linear amplifier

PERIODICAL: Apparatura dlya yadernoy spektrometrii, no. 1, 1960, 61-76

TEXT: Besides high amplification, stability, linearity and low noise level, linear amplifiers of the type used in nuclear physics should also have good overload characteristics. The present paper gives a detailed description of a newly designed non-overloading linear amplifier, and a theoretical analysis of the overload effects. First the pile-up effect is analyzed which is due to the incomplete discharge of the capacitor between the pulses. The probability of charge pile-up increases with the pulse length with a fixed average number of pulses per unit of time. This kind of overcharge leads to signal distortion, and fluctuations of the stored charge cause a smeared spectrum. The pile-up effect can be reduced by including a differentiating element in the circuit, e.g. an RC filter or a delay line. The choice of differentiating element is discussed in detail. It is shown that a delay line would be better than an RC filter.

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An overload-free pulsed linear...

In this case the signal-to-noise ratio and the pulse shape are better. Optimum pulse formation conditions are determined for the shortening of pulse length. Spectrum reproduction is estimated for single and double pulse formation at a counting rate of 10^5 pulses/sec. For this case double pulse formation was found to be better. Amplitude overload causes grid current in the amplifier tube which causes distortion of the pulse-height spectrum. Some methods of eliminating this source of overload effect are discussed. The overload properties of an amplifier may be improved by increasing the automatic mixing in the stages subject to overload, use of tubes with extended a-c characteristics in these stages and by decreasing anode loads. The use of an "amplifying" diode (Fig. 5) was found to be most effective. The overload properties are also improved if the amplifier or part of its stages are designed as differential amplifiers, or if a blocking circuit is used. The latter is of advantage if the incoming pulses are too high. In such amplifying stages a feed-back (Fig. 7) is used. Overload is eliminated because the signal voltage supplied to the grid of tube $\mathcal{J}_2$ is divided between resistors R_1 and R_2. The overload-free amplifier described consists of three principal parts: the preamplifier, the main amplifier and the supply block. [Abstracter's note: A detailed

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An overload-free pulsed linear...

circuit diagram of the amplifier is given, but since it would cover too many cards it is not reproduced.] The main amplifier consists of a phase inverter, three amplifying groups with negative feed-back, a limiter, two delay-line pulse formation elements and an outlet cathode follower. Its amplification factor equals 1000. The amplifier was tested by recording the Co^{60} spectrum with 10^5 pulses/sec, using an automatic scintillation spectrometer of the type ACC-1 (ASS-1) and an oscillator providing constant pulse height, (Fig. 9). There are 11 figures, 2 tables, and 6 references: 1 Soviet and 5 non-Soviet. The four references to English-language publications read as follows: Magee, Bell Jordan. Rev. Sci. Instrum., 23, No. 1 (Jan. 1952); Chase Higinbotham. Rev. Sci. Instrum., 23, No. 1 (Jan. 1952); Edvord. Fearstain. Rev. Sci. Instrum., 27, No. 7 (July 1956); Koch H. W. and Foote R. S. Total-absorption x-ray Spectrometry. Nucleonics, 12, No. 3, 54 (March 1954).

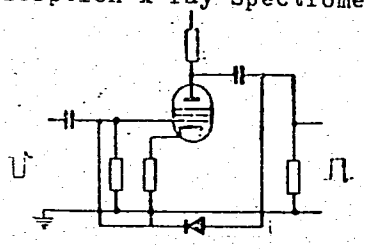

Fig. 5

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L 6859-65
EWT(m) Pb-4 DIAAP/AFMDC/ASD(a)-5/AFETR/AFWL/SSD/BSD

ACCESSION NR: AR4044268 S/0272/64/000/006/0159/0159

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika. Otdel'ny*y vy*pusk, Abs. 6.32.1124

AUTHOR: Arsayev, M. I.; Zaglyadimov, D. M.; Rekhin, Ye. I.; Smolin, V. A.

TITLE: Scintillation installation for measurement of absolute activity and evaluation of the spectral composition of low-energy β-radiators

CITED SOURCE: Sb. Stsintillyatory* i stsintillyats. materialy*. Khar'kov, Khar'kovsk. un-t, 1963, 225-231

TOPIC TAGS: scintillator, measuring instrument, radiation measurement, measuring apparatus, beta radiation

TRANSLATION: There are given a block-diagram and basic data of an installation ensuring high effectiveness of registration and stability of operation with a sharp decrease in the influence of background radiations. Method of measurement consists of the introduction of a β-radiator into the composition of a liquid scintillator, as a result of which is attained 4π-geometry of count and is

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L 6859-65
ACCESSION NR: AR4044268

eliminated self-absorption of β-radiation. There are examined the electrical part of the installation and optimum conditions of registration of H^3 and C^4.

SUB CODE: NP, OP ENCL: 00

Card 2/2

L 45811-66 EWT(d)/EWT(l)/EWP(l) IJP(c) BB/GG

ACC NR: AR6023256 SOURCE CODE: UR/0058/66/000/003/A046/A047

AUTHOR: Kurochkin, S. S.; Belov, A. F.; Belous, A. L.; Krasheninnikov, I. S.; Salichko, V. N.; Rekhin, Ye. I.; Fateyev, V. A.

TITLE: A kit of units and blocks for multichannel and multidimensional analyzers

SOURCE: Ref zh. Fizika, Abs. 3A408

REF SOURCE: Tr. Soyuzn. n.-i. in-ta priborostr., vyp. 1, 1964, 63-78

TOPIC TAGS: multichannel analyzer, pulse height analyzer, computer component, computer coding/ BAP amplitude code converter, BVP time code converter, BDP coordinate code converter, BZU memory unit, BAU arithmetic unit, BUU control unit, BZ printer, BZ perforator, BZ tape storage, BO oscilloscope block, BUO oscilloscope control

ABSTRACT: The authors consider the characteristics of a kit of units and blocks for multichannel and multidimensional analyzers. All the units of the kit are matched both with respect to the input and output resistances, accuracy, range of measured quantities, and operating speed. The parameters of the blocks are guaranteed at a temperature 20 ± 15C and a relative humidity 70 ± 10%. The blocks are designed for supply voltages ±6, 12, 27, and 100V, with stability ±0.5%. The kit includes the following: input units, circuits for the accumulation and processing of information, output devices, and power supplies. The parameters of the following units are presented: 1) BAP-5 and BAP-7 pulse amplitude into code converters; 2) BVP-5 time intervals into digital code converters; 3) devices BDP-7 and BDP-8 for the transformation of the coordinates of pickups, targets, samples, etc. into a digital code; 4) BZU-15,

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L 45811-66

ACC NR: AR6023256

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BZU-16, BZU-17, BZU-18, BZU-19, BZU-20, BZU-22, and BZU-23 analyzer memory units; 5) BAU-16 and BAU-17 arithmetic units; 6) BUU-3, BUU-16, and BUU-17 analyzer control blocks; 7) BZ-15 and BZ-22 numbers printers; 8) BZ-17 and BZ-18 perforators; 9) BZ-20 magnetic tape storage; 10) BO-5 oscillograph block, BUO-2-5 oscillograph control block, and a few other devices. A table is presented, in which data on the applications of the listed blocks are summarized. Yu. Semenov. [Translation of abstract]

SUB CODE: 09

Card 2/2

L 00840-67 EWT(1)/EWT(m) JD

ACC NR: AR6014104 SOURCE CODE: UR/0272/65/000/011/0152/0152

AUTHORS: Krasheninnikov, I. S.; Kurochkin, S. S.; Rekhin, Ye. I.; Yeldashev, V. V.; Yefimchik, R. S.; Tuchina, A. S.

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B

TITLE: Input devices for multichannel and multidimensional analyzers

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 11.32.1333

REF SOURCE: Tr. Soyuzn. n.-i. in-ta priborostr., vyp. 1, 1964, 79-103

TOPIC TAGS: transistorized circuit, parameter, analog digital converter

ABSTRACT: Amplitude converters[05] and some peculiarities of their transistorization are examined. When amplitude converters are built with transistors, the main attention is given to increasing their response rate and improving their measuring parameters (linearity and stability of characteristics). The possibility of simultaneous measurement of signals from several detectors is also considered. The parameters of the better transistor amplitude converters, converters of the detector number to digital code, and converters of nano- and microsecond time intervals are given. 12 illustrations. Bibliography of 3 citations. [Translation of abstract]

SUB CODE: 09

Card 1/1 pb UDC: 389:621.317.757

LAGUNOV, L.L., kand.tekhn.nauk.; YEGOROVA, L.N., kand.tekhn.nauk.; REKHINA, N.I., kand.tekhn.nauk.; YEREMEYEVA, M.N., mladshiy nauchnyy sotrudnik.

Studying acid preservation of fish and fish offal. Trudy VNIRO 35:115-130 '58. (MIRA 11:11)

1. Laboratoriya novoy tekhnologii Vsesoyuznogo nauchno-issledovatel'skogo instituta morskogo rybnogo khozyaystva i okeanografii.
(Fishery products--Preservation) (Acids)

LAGUNOV, Lev L'vovich; REKHINA, Nadezhda Ivanovna; KAMENSKAYA, Ye.L., red.

[What can be prepared from shrimp, mussel, cyster, scallop, squid and trepang, and how to do it] Chto i kak mozhno prigotovit' iz krevetki, midii, ustritsy, morskogo grebeshka, kal'mara i trepanga. Moskva, Pishchevaia promyshlennost', 1964. 42 p. (MIRA 17:12)

PEKLINA, N. I.

Peklina, N. I. -- "Obtaining a Protein Preparation from Codfish." Moscow Technical Inst of the Fish Industry and Economy imeni A. I. Mikoyan. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No 12, 1956

OYKS, G.N., kand. tekhn. nauk; SOROKIN, A.A.; KAPUSTIN, I.V.; TSYKIN, L.V.; BORODIN, D.I.; KUTSENKO, A.D.; RUKHITS, G.N.; ZAGREBA, A.V.; UL'YANOV, D.P.; TRUSEYEV, A.I.

Trends in the reorganization of the Bessemer furnace department at the Dzerzhinskii Plant. Met. i gornorud. prom. no.3:28-30 My-Je '64. (MIRA 17:10)

L 44276-65 EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP5009913 UR/0032/65/031/004/0442/0443

AUTHOR: Rokhkolaynen, G. I.

TITLE: Determination of rare earths in solutions by the x-ray spectral fluorescence method

SOURCE: Zavodskaya laboratoriya, v. 31, no. 4, 1965, 442-443

TOPIC TAGS: x ray spectrum, fluorescent spectrum, rare earth, spectrometer, geiger counter /MSTR 3 geiger counter, "Bereza" roentgenometer

ABSTRACT: An x-ray spectral fluorescence method is proposed for determining rare earths still in solution, in the intermediate products of their ion-exchange separation. Such solutions contain 5-15 g/liter total rare earths, acetic acid, and Trilon B. The rare earths are elutriated systematically, according to decrease in atomic number, and each fraction contains no more than five elements of successive atomic numbers in solution. Thus, when analyzing the spectra of the L series, there is practically no chance of finding "mutually interfering" elements in the solution. Computations and experiments show that at constant concentration of a given element, the intensity of the analytical lines does not change within the limits of measuring accuracy for solutions having variations

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L 44276-65

ACCESSION NR: AP5009913

in total mass of rare earths on the order indicated (5-15 g/liter). Variation in content of acetic acid, Trilon B, or nitric acid (which was used to prepare standard solutions) has practically no effect on the analytical results. Measurements were made on a long-wave spectrometer. Voltage on the x-ray tube was 30 kv, the current 30 ma. A quartz (10I0) analyzer was used. Intensity was recorded by an MSTR-3 geiger counter and a "Bereza" roentgenometer. The intensity of lines measured in the test solutions was compared with lines obtained from the standards. The sum of all rare earths thus measured in each solution agrees well with the sum determined chemically. Reproducibility is within 5-8%. Sensitivity is about 1 g/liter for La, 0.5-0.2 g/liter for the Ce-Nd series, and 0.1 g/liter for the remaining rare earths. One determination may be made in 4-5 minutes. Orig. art. has: 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IC, MP

NO REF SOV: 000 OTHER: 000

BJS

Card 2/2

REKHKOLAYNEN, G.I.

Determination of niobium and tantalum in solutions based on the absorption of scattered X rays. Zav. lab. 30 no.6:689-691 '64 (MIRA 17:8)

OYKS, G.N., doktor tekhn. nauk; BORODIN, D.I.; TSYKIN, L.V.; KAPUSTIN, I.V.; SOROKIN, A.A.; KUTSENKO, A.D.; ZAGREBA, A.V.; REKHLIS, G.N.; TRUSEYEV, A.I.; Prinimali uchastiye: GUBENKO, S.M.; FOMIN, S.I.; KUBLITSKIY, A.M.; SAF'YANOV, V.P.; VOLYNKIN, V.M.

Some problems in the hydrodynamics of a converter bath. Met. i gornorud. prom. no.3:29-31 My-Je '65. (MIRA 18:11)

KUZNETSOV, M.P.; REKHLIS, G.N.; POLOVSHENKO, I.G.; KRAMNIK, T.A.; YEMLIK, B.I.; BAPTIZMANSKIY, V.I.; SOROCHAN, N.G.; PLETAYEV, B.L.

Research carried on at the Dzerzhinskii Plant. Stal' 16 no.8:749-750 Ag '56. (MLRA 9:10)

(Dneprodzerzhinsk--Metallurgy)

OYKS, G.N., doktor tekhn. nauk; BORODIN, D.I.; TSYKIN, L.V.; KAPUSTIN, I.V.; SOROKIN, A.A.; KUTSENKO, A.D.; ZAGREBA, A.V.; TRUSEYEV, A.A.; REKHLIS, G.N.

Effect of the condition of the slag on the intensity of ejections during the Bessemer production of steel. Met. i gornorud. prom. no.1:24-28 Ja-F '65. (MIRA 18:3)

SHCHIRENKO, N.S., professor; OSTAPENKO, L.V.; REKHLIS, G.N.

Opening the tap hole of an open-hearth furnace with the aid of a shaped charge. Metallurg no.7:31-34 Jl '56. (MLRA 9:9)

1.Dneprepetrovskiy metallurgicheskiy institut (for Shchirenko, Ostapenko).2.Rukoveditel' staleplavil'noy gruppy TSZL zaveda imeni Dzerzhinskogo (for Rekhlis).
(Open hearth process) (Blasting)

SOROKIN, A.A., inzh.; KUTSENKO, A.D., inzh.; KARPUNIN, A.M., inzh.;
REKHLIS, G.N., inzh.; SHCHERBINA, P.A., inzh., ORGIYAN, V.S., inzh.

Rails made of basic Bessemer steel with top oxygen blowing.
Stal' 24 no.5:417-418 My '64. (MIRA 17:12)

1. Dneprovskiy metallurgicheskiy zavod im. Dzerzhinskogo.

KUTSENKO, A.D., dotsent; REKHLIS, G.N., inzh.; SOLOGUB, S.L., inzh.; KARPUNIN, A.M., inzh.

Effect of the ingot mold design on the quality of Bessemer steel railroad rails. Stal' 24 no.5:420-423 My '64. (MIRA 17:12)

1. Dneprovskiy metallurgicheskiy zavod im. Dzerzhinskogo.

KARPUNIN, A.M.; PROSVIRIN, K.S.; BESEDIN, P.T.; ORGIYAN, V.S.; BAPTIZMANSKIY, V.I.; SHCHERBINA, P.A.; REKHLIS, G.N.

Rails made of low-alloy, acid, Bessemer steel. Stal' 24 no.5:448-451 My '64. (MIRA 17:12)

1. Dneprovskiy metallurgicheskiy zavod im. Dzerzhinskogo, Dnepropetrovskiy metallurgicheskiy institut i Ukrainskiy institut metallov.

REKHLIS, G.N.

4210 **Piercing Open-Hearth Tap Holes With Hollow Charges.** N. S. Shchirenko, L. V. Ostapenko, and G. N. Rekhlis. *Henry Brutcher Translation No.* 3834, 7 p. (From *Metallurg*, v. 1, no. 7, 1956, p. 31-34.) Henry Brutcher, Altadena, Calif. Met

Advantages of proposed tapping practice include clean, straight hole through which the metal stream flows out evenly; no splashing out of metal; no damage to hole wall or furnace backwall or hearth; and perfect safety in application.

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REKHLIS, G. N

Research Work at the Dzerzhinskii Works. M. P. Kuz-netsov, G. N. Rekhlis, I. G. Polovchenko, T. A. Kramnik, B. I. Emlik, V. I. Baptizmanskii, N. G. Somchan and B. L. Polotsev. (*Stal'*, 1956, (8), 749–750). [In Russian]. The central works laboratory has helped in the adoption of low-manganese pig-iron production and utilization, developed a standard sinter-reducibility determination method, contributed to improved Bessemer steel and rolled strip quality and to fuel economy.—S. K.

RECHLITSKIY, S.I.

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/2 PG - 599
AUTHOR RECHLIZKI S.I.
TITLE On the stability of the solutions of some linear differential equations with retarding argument in the Banach space.
PERIODICAL Doklady Akad.Nauk 111, 29-32 (1956)
reviewed 2/1957

Starting from the results of Rutman (Doklady Akad.Nauk 101, No. 2 and No.6 (1955)) the author proves the following theorem:
Let the operator function $A = A(t)$ $(0 \leq t < \infty)$ satisfy the following conditions:
1) for every fixed t, $A(t)$ is a linear bounded operator in the complex Banach space;
2) $\{A(t)\}$ is compact: every sequence of $\{A(t)\}$ contains a strongly convergent part;
3) there exists a strong derivative $A'(t)$;
4) $\lim_{t\to\infty} \|A'(t)\| = 0$.

In order that the boundary value problem

$$\frac{dy}{dt} - A(t)y(t-a) = x(t) \qquad (0) \leq t < \infty, \ a > 0)$$

$$y(t) = \varphi(t) \quad \text{for } t \leq 0$$

Doklady Akad.Nauk 111, 29-32 (1956) CARD 2/2 PG - 599

for arbitrary continuous bounded functions $x(t)$ and $\varphi(t)$ has a bounded solution $\varphi(t)$ it is necessary and sufficient that for every limit operator $A\omega$ generated by $\{A(t)\}$ for $t \to \infty$, all roots z of the equation

$$1 - z\, e^{\lambda a z} = 0$$

for an arbitrary λ of the spectrum of $A\omega$ lie outside of the unit circle.

INSTITUTION: Educational Institute, Odessa.

REKHLITSKIY, Z.I.

AUTHOR: REKHLITSKIY, Z.I. 20-3-8/59

TITLE: Marks for the Boundedness of the Solutions of Linear Differential Equations With a Variable Shift of the Argument (Priznaki ogranichennosti resheniy lineynykh differentsial'nykh uravneniy s peremennym zapazdyvaniyem argumenta)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol.118, Nr.3, pp.447-449 (USSR)

ABSTRACT: Theorem: Let the continuous bounded function $\alpha(t)$ admit the representation $\alpha(t) = \alpha_1(t) + \alpha_2(t)$, where 1) there exists $\alpha_1'(t)$ 2) $\lim_{t\to+\infty} \alpha_1'(t) = \lim_{t\to\infty} \alpha_2(t) = 0$ and 3) $\overline{\lim_{t\to\infty}} \alpha(t) = a > 0$. In order that the boundary value problem

$$\frac{dy}{dt} - \lambda y(t - \alpha(t)) = x(t) \qquad 0 \leq t < \infty$$

$$y(t) = \varphi(t) \qquad (t \leq 0;\ \alpha(t) \geq 0)$$

for all bounded $x(t)$ and $\varphi(t)$ has a bounded solution $y(t)$ it is necessary and sufficient that all roots z of the equation $1 - ze^{\lambda az}$ lie outside of the unit circle.

Card 1/2 Three similar very long theorems are formulated for the same

and other boundary value problems in the Banach space.
No proofs are given.
4 Soviet references are quoted.

ASSOCIATION: Odessa Pedagogical Institute im.K.D.Ushinskiy (Odesskiy pedagogicheskiy institut im.K.D.Ushinskogo)
PRESENTED: By I.G.Petrovskiy, Academician, 22 July 1957
SUBMITTED: 15 January 1957
AVAILABLE: Library of Congress
Card 2/2

REKHLITSKIY, Z. I., Cand Phys-Math Sci --- (diss) "On the stability of the solutions of certain systems of linear differential equations with ~~delayed~~ argument in Banakh's space." Voronezh, 1957. 8 pp (Min of Higher Education USSR, Voronezh State Univ), 100 copies. Bibliography at end of text (19 titles)

(KL, 2-58, 111)

16(1)

AUTHOR: Rekhlitskiy, Z.I. SOV/20-125-1-10/67

TITLE: Marks of Boundedness of the Solutions of Linear Differential Equations With Some Argument Retardations (Priznaki ogranichennosti resheniy lineynykh differentsial'nykh uravneniy s neskol'kimi zapazdyvaniyami argumenta)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 46-47 (USSR)

ABSTRACT: Theorem: In order that for all bounded $x(t), \varphi(t)$ the boundary value problem

$$\frac{dy}{dt} - \sum_{j=1}^{n} \lambda_j y(t-a_j) = x(t) \qquad (0 \leq t < \infty)$$

$$y(t) = \varphi(t) \qquad (t \leq 0, a_j \geq 0),$$

where $a_j \geq 0$ are constants, has a bounded solution $y(t)$ it is necessary and sufficient that all roots z of the equation

$$z \exp\left[\sum_{j=1}^{n} \lambda_j e^{-a_j z}\right] = 1$$

lie outside of the unit circle.

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